

R&D Scoping and Framing Workshop
R&D Roadmap: Managing Western Water as Climate Changes
February 20 and 21, 2008

Responsibilities, Challenges, and Needs
Perspectives of Reclamation Environmental Compliance and Ecosystem Restoration Managers

Note: The information presented herein is intended solely to facilitate a working level dialogue between the federal scientific community, and Reclamation water and environmental resource managers, on climate change research needs in support of Western water management. As such, *“this information has not been formally disseminated by the Bureau of Reclamation and should not be construed to represent any agency determination or policy”*.⁽¹⁾

Generally describe your region’s environmental compliance and ecosystem restoration responsibilities (*this is meant to be a high level summary of your world*):

The primary compliance emphasis in this region is with sections 7 and 9 of the Endangered Species Act. Fish (and aquatic communities) have become threatened and endangered partly due to the construction of dams and reservoirs. Ecosystem restoration is less of a concern for the region, although there are site specific restoration actions related to maintaining or enhancing critical habitat for endangered fish, primarily in the middle Rio Grande and along the Colorado and San Juan rivers.

Describe the decisions that your region makes associated with environmental compliance and restoration responsibilities that may be affected by climate change:

Climate change is a generally relevant (in the NEPA sense) when the UC Region prepares compliance analyses (EISs, EAs, or Bas) that have a ten year or longer duration. The decisions associated with such long-term analyses are the extent to which proxy data indicate the historic hydrologic record may not reflect the longevity or severity of drought.

What are the primary scientific or non-scientific factors that typically govern these decisions?

Input from public scoping, as well as knowledge of the deviations between proxy records and historic records. Our last couple of EAs, about one third of the comments were about climate and how it might affect water supplies.

Who are the primary stakeholders affected by these decisions and summarize their primary concerns?

Specific to the particular Reclamation project, generally water districts and municipalities.

In general, list the top three wishes that you would like for the scientific community to provide for you, in support of your region’s environmental compliance and ecosystem restoration responsibilities that are related to understanding and utilizing climate change information.

^{1/} Stated in accordance with Information Quality Act (Public Law 106-554), Final Information Quality Bulletin for Peer Review (Office of Management and Budget, December 16, 2004).

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1. Reclamation modelers need to determine how readily available proxy data from the entire Holocene might be included in or somehow added to the historic gage records. There needs to be a way to merge data sets for long-term planning and compliance analyses.

Are there current or emerging “*project-specific applications*” in your region where answers to these three wishes may be beneficial to you in the near-term?

There is a wealth of new tree-ring data available for the Rio Grande, Colorado and Green rivers. My wish (Nancy Coulam) is that when NEPA or ESA analyses have a 10 year or longer duration, that more of the variability from the proxy records gets included in the modeling, and gets disclosed to the public and the decision-makers.